

## ANSWERS TO DOGGR QUESTIONS

Letter dated July 5, 2018

Planned Startup date is October 15, 2018





State of California \* Natural Petitulines Agency
Department of Consequation
Division of Oil, Gas, and Geothermal Resources
Southern District
59.16 Corporate Avenue \* Suite 100
Oppress, CA 90630
17.14) 818-9847 \* FAX (7.44) 816-6853

July 5, 2018

#### VIA EMAIL

Mr. Timothy Parker, Agent AllenCo Energy, Inc. (A1240) 2109 Gundry Avenue Signal Hill, CA 90755-3517 tparker@allencoca.com

Dear Mr. Parker

STARTUP PLAN RESPONSE AND OVERDUE FACILITY TESTING, ST. JAMES LEASE, 813 WEST 23\*0 STREET, LOS ANGELES CA 90007, LAS CIENEGAS OIL FIELD

#### STARTUP PLAN:

The Division of Oil, Gas, and Geothermal Resources (Division) has reviewed AllenCo Energy, Inc. (AllenCo) St. James Lease Startup Checklist submitted on March 30, 2018 as its startup plan. The startup plan, as submitted, is lacking significant information necessary for the Division to evaluate AllenCo's preparedness to resume operations at its St. James drill site. Please revise the startup plan to include details of the following

- 1. Hours facility will be staffed
- Hours facility will operate (well work hours, injection well hours, gas turbine hours, production well hours.).
- Anticipated number of personnel on site daily (operator and contractors).
- 4. Idle well testing plan by well.
- Injection well lesting plan.
- 6. Full start up process, including significant dates or day counts, from initial operations to full production (i.e. gas line purge, well bled down, injection well tests, compressor startup, micro turbine startup, idle well testing start to finish, production well start up...)
- Operating processes initial fluid handling and disposal, production system operation, wellwork coordination, injection well startup procedures, production well start up procedures.
- 8. Sound mitigation plan.
- 9. Emissions/Odor control plan
- 10. Preventative maintenance program plan.
- 11 Emergency operations plans (i.e. procedures for gas leak, fire, chemical spill, produced fluids spill, system alarms, emergency alarms.).
- 12. Anticipated daily mobile equipment operations (i.e. rigs, vacuum trucks, water trucks, wireline trucks, chemical trucks, mobile pumps ...).
- 13 Anticipated mobile equipment counts by day (beginning with day one).
- 14. Anticipated daily vehicle traffic during each stage of the startup process.

Please provide this updated plan at your earliest convenience, but no less than 30 days prior to your anticipated startup.

AllenCo Energy, Inc. Startup Plan Response, St. James Lease July 5, 2018 Page 2

#### FACILITY TESTING:

A review of Division records show required pipeline testing was last completed in November 2013. Per California Code of Regulations (CCR) § 1774.1(e) mechanical integrity tests must be performed on all environmentally sensitive and all urban pipelines over 4° in diameter, every two years. Testing of the pipelines associated with this facility are overdue.

Division records indicate tank testing was last performed in December 2012. Per CCR § 1773.4(a)(1) tank thickness testing must be performed at least once every five years. As indicated in your tank testing report dated 12/14/2012, new tank thickness tests were to be performed by December 14, 2017.

Per CCR § 1773.5(b) out-of-service production facilities shall not be reactivated unless all needed repairs have been completed and the production facility is in compliance with all applicable testing and inspection requirements. Please notify the Southern District office at least two days prior to conducting pipeline or tank testing.

If you have any questions, please contact Tamara Lopez at (714) 816-6847 or email at Tamara Lopez@conservation Ca go.

Sincerely

Chris McCullough.

Environmental, Facilities, and Field Operations Manager

cc: Eric Witten, Consultant

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Tamara Lopez, Area Engineer

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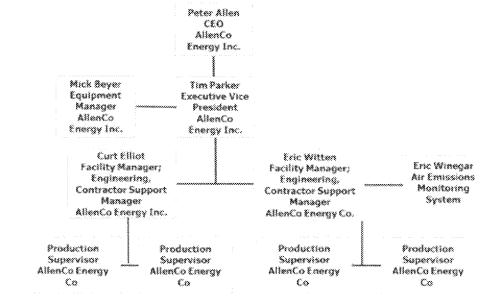
Kathleen Andrews, Environmental and Facilities Engineer

Kathigea Angrews@coase(vatice palgor)



### 1. Hours facility will be staffed

The facility will be staffed 24 hours per day and 7 days per week. The following is the planned organization chart.



AllenCo Energy, Inc.



### Operations Organization – Facility Managers

- Curt Elliot and Eric Witten are 3rd Party Consultants with the day to day management responsibility and authority. Their primary focus is safety, environment, training, oversite and reporting over and above daily production. They will be on location any time contractors are onsite. They will be on location any time well intervention operations are being conducted. Hours will be adjusted daily to accommodate operations.
- Eric Witten will perform specific tasks related to DOGGR oversite, Air Emissions monitoring and Engineering.
- Curt Elliot will focus on safety, training, daily reporting and contractor planning.
- Both managers have full authority to shutdown work at any time for any reason.

### Operations Organization – Production Supervisors

- There will be two production supervisors on shift at all times. There
  primary responsibility is to maintain the facility in a safe and
  environmentally responsible condition. Everything else that they do is
  secondary.
- When contractors are on location, one supervisor will be assigned to oversee contractor operations and will not have any responsibility for the production operations.
- If necessary during contractor operations, the production operations may be curtailed to maintain safety and environmental operations at the highest possible level.
- All production operators have the right to shutdown operations at any time for any reason.

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### Shift Hours

- Production operators will work 12 hours on and 12 hours off. They
  will work noon to midnight and midnight to noon.
- Facility managers will be assigned to work 12 hours on and 12 hours off. They will work 6 am to 6 pm and 6 pm to 6 am. During periods when contractors are on site the hours will be adjusted to provide the proper oversite.

### **Contractor Operations**

- All contractors will work 7 am to 5 pm. Contractor crews that have 3
  or more workers will have a full time supervisor on site. To minimize
  impact on the neighborhood the contractors will arrive at 630 am and
  remain inside the lease until 5pm. There will be no in and out.
- All contractors will submit their safety programs to the Facility manager before they are allowed on the lease.
- All contractors will complete a safety orientation prior to commencing work.
- All contractors will provide PPE for their employees.



# 2. Hours Facility will operate (well work hours, injection well hours, gas turbine hours, production well hours)

The St. James Lease will operate 24 hours per day and 7 days per week. There will be 2 production operators on duty 24 hours per day and 7 days per week. There will be 2 Facility Managers that will cover the management of the St James lease 24 hours per day 7 days per week. The Facility Managers' hours will be variable to adjust for different work tasks.

All well work will be conducted Monday through Friday from 7 am to 5 pm. There will not be any weekend well work.

Injection wells will operate 24 hours per day, 7 days per week.

The gas turbines will operate 24 hours per day, 7 days per week. The gas turbines function as the base load for the electrical load. As such the turbines operate 24/7. If gas production drops then turbines will be selectively shut down depending on gas volumes. At least one turbine will be operating 24/7.

The production well hours are 24/7. The production wells will be opened gradually until maximum production is achieved. New wells well only be opened during daylight hours to make sure there is proper light and support to safely open wells. Should a well go down at night, the well will be left down until daylight when the proper repair planning is complete and the proper resources are available onsite to safely re-start the well.

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#### 3. Anticipated number of personnel on site daily (operator and contractor)

Monday through Friday from 7 am to 5 pm there will be 2 company operators and 1 company facility manager. During the initial startup phase some equipment will have to be calibrated and tested because it is new or has been idle for a long time. During this period there will be no more than two contractor companies onsite working on their equipment. This will allow for proper supervision by the production operator. Depending on the task the contractor personnel will vary. However we expect that there will be 6 contractor personnel onsite between 7 am and 5 pm.

Hours outside of 7 am to 5 pm Monday through Friday there will not be any contractors. Only the 2 operators and the facility manager.

The AllenCo Energy, Inc. CEO and Operations Manager may visit at any time. Together or separately.

During the time that rig work is being conducted there will be 4 rig workers and one supervisor. Rig work will not begin until all production equipment is tested, calibrated and functioning properly.

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4 and 5. Idle Well testing plan by well for producers and injectors.

The final depths and pressures to test by will be determined once the wells have been cleaned out and a final TVD and circulating fluid weight is determined. Then based on the attached well data sheet the actual test pressure will be determined. Based on a historical review and the reservoir characteristics determined on the well data sheet the estimated test pressures for all wells should not exceed 250 psi. This will make sure that testing is below the frac pressure but high enough to determine if there are any leaks.

The Idle Well Test Plan for injector SJ#5, test #1 is:

- 1. MIRU
- 2. Set up sound barriers around the rig.
- 3. Connect to the wellhead and circulate the well clean with brine. Kill the well with weighted brine. Report the final brine weight on the tour report.
- 4. Remove the X-mas tree and wellhead. Make sure the well is dead.
- 5. Install the  $10 \times 900$  BOPE (rated 2000 psi).
- 6. POOH with tubing and packer.
- 7. RIH with a 7 inch x 23 pound casing scraper and clean the casing as deep as possible with the goal to clean out to the top of the perfs. Report the final clean out depth on the tour sheet. Use the wellbore schematic and the well list to determine clean out depth and formation depth.
- 8. Circulate the hole clean.
- 9. Notify DOGGR prior to testing the 7 inch casing so they may witness the test. Use a calibrated chart recorder and have current calibration stickers on all gauges.
- 10.RIH with a 7 inch 23 pound lock set test packer. Set packer at final cleanout depth or 100 feet above the top perf or above the 7 inch casing shoe.
- 11. Pressure test the casing for 30 minutes at 250 psi surface pressure after the surface pressure is stabilized. Use 250 psi if the fluid in the well is between 8.5 ppg to 9.0 ppg. If the fluid in the well is greater than 9.0 ppg re-calculate the surface test pressure to keep the pressure at the test packer below 2,337 psi Upper Jefferson frac pressure. NOTE: Before each pressure test calculate the hydrostatic pressure at the upper Jefferson and determine a new surface test pressure to keep the test pressure below the frac pressure of 2337 psi.
- 12. Release the packer and POOH.
- 13. RIH with tubing and packer. Set packer at the required depth. Land tubing.
- 14. Remove BOP. NU wellhead and tree. Test.
- 15. Return well to service.
- 16. Clean location. Release Rig.



The Idle Well Test Plan for Producers SJ#4, 6, 8, 9, 10, 15, 17, and 19 test #2 through 9 is:

- 1. MIRU
- 2. Set up sound barriers around the rig.
- 3. POOH with rods.
- Connect to the wellhead and circulate the well clean with brine. Kill the well with weighted brine. Report the final brine weight on the tour report.
- 5. Remove the X-mas tree and wellhead. Make sure the well is dead.
- 6. Install the 10 x 900 BOPE (rated 2000 psi).
- 7. POOH with tubing and packer.
- 8. RIH with a 7 inch x 23 pound casing scraper and clean the casing as deep as possible with the goal to clean out to the top of the perfs. Report the final clean out depth on the tour sheet. Use the wellbore schematic and the well list to determine clean out depth and formation depth.
- 9. Circulate the hole clean.
- 10. Notify DOGGR prior to testing the 7 inch casing so they may witness the test. Use a calibrated chart recorder and have current calibration stickers on all gauges.
- 11.RIH with a 7 inch 23 pound lock set test packer. Set packer at final cleanout depth or 100 feet above the top perf or above the 7 inch casing shoe.
- 12. Pressure test the casing for 30 minutes at 250 psi surface pressure after the surface pressure is stabilized. Use 250 psi if the fluid in the well is between 8.5 ppg to 9.0 ppg. If the fluid in the well is greater than 9.0 ppg re-calculate the surface test pressure to keep the pressure at the test packer below 2,337 psi Upper Jefferson frac pressure. **NOTE:** Before each pressure test calculate the hydrostatic pressure at the upper Jefferson and determine a new surface test pressure to keep the test pressure below the frac pressure of 2337 psi.
- 13. Release the packer and POOH.
- 14. RIH with tubing and packer. Set packer at the required depth. Land tubing.
- 15. Remove BOP. NU wellhead and tree. Test.
- 16. Return well to service.
- 17. Clean location. Release Rig.

The Idle Well Test Plan for Injectors SJ#1, 2, 7, 12, 13, 21 test #10 through 15 is:

- 1. MIRU
- 2. Set up sound barriers around the rig.
- Connect to the wellhead and circulate the well clean with brine. Kill the well with weighted brine. Report the final brine weight on the tour report.
- 4. Remove the X-mas tree and wellhead. Make sure the well is dead.



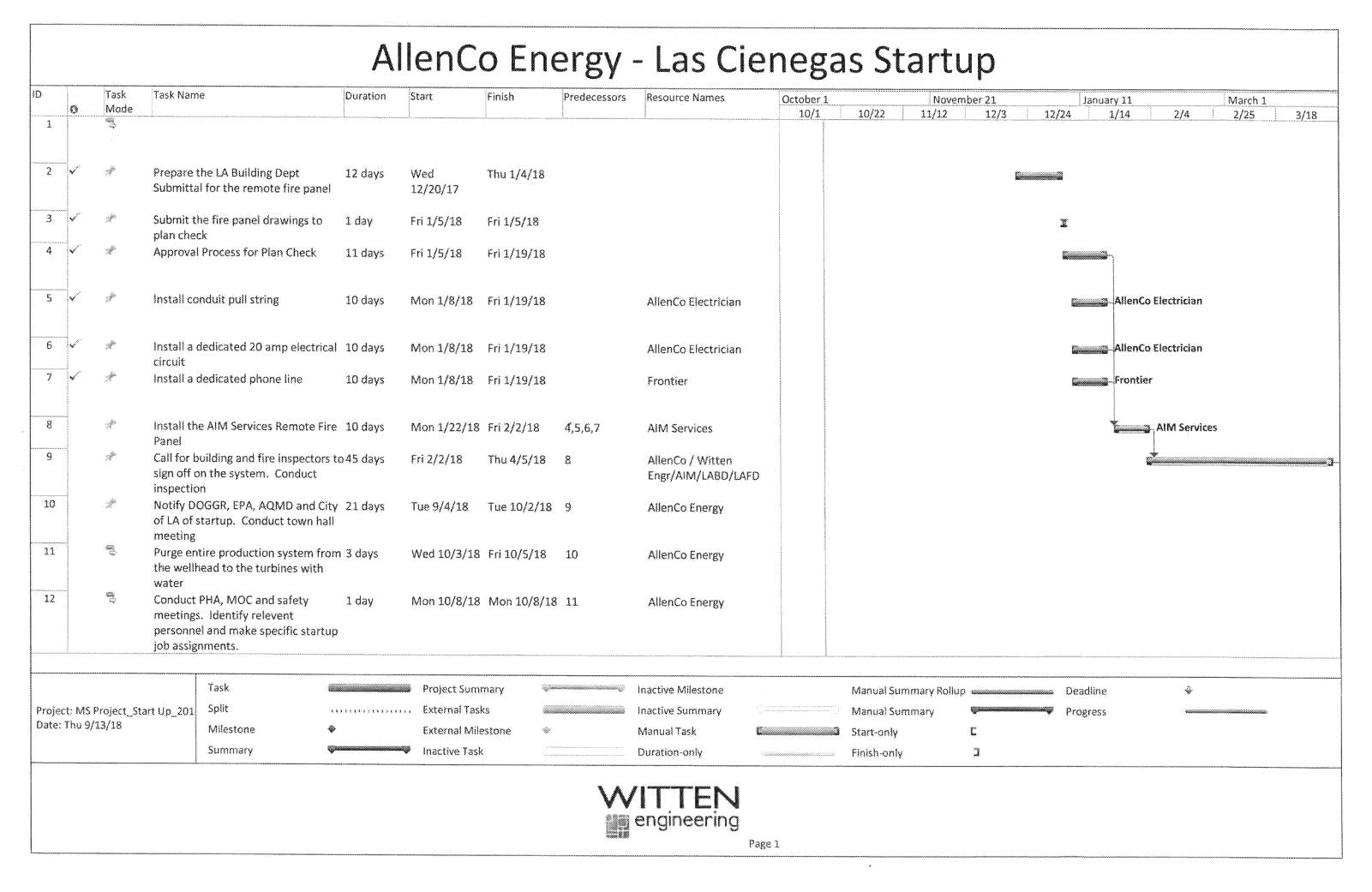
- 5. Install the  $10 \times 900$  BOPE (rated 2000 psi).
- 6. POOH with tubing and packer.
- 7. RIH with a 7 inch x 23 pound casing scraper and clean the casing as deep as possible with the goal to clean out to the top of the perfs. Report the final clean out depth on the tour sheet. Use the wellbore schematic and the well list to determine clean out depth and formation depth.
- 8. Circulate the hole clean.
- 9. Notify DOGGR prior to testing the 7 inch casing so they may witness the test. Use a calibrated chart recorder and have current calibration stickers on all gauges.
- 10. RIH with a 7 inch 23 pound lock set test packer. Set packer at final cleanout depth or 100 feet above the top perf or above the 7 inch casing shoe.
- 11. Pressure test the casing for 30 minutes at 250 psi surface pressure after the surface pressure is stabilized. Use 250 psi if the fluid in the well is between 8.5 ppg to 9.0 ppg. If the fluid in the well is greater than 9.0 ppg re-calculate the surface test pressure to keep the pressure at the test packer below 2,337 psi Upper Jefferson frac pressure. **NOTE:** Before each pressure test calculate the hydrostatic pressure at the upper Jefferson and determine a new surface test pressure to keep the test pressure below the frac pressure of 2337 psi.
- 12. Release the packer and POOH.
- 13.RIH with tubing and packer. Set packer at the required depth. Land tubing.
- 14. Remove BOP. NU wellhead and tree. Test.
- 15. Return well to service.
- 16. Clean location. Release Rig.

The Idle Well Test Plan for Producers SJ#3, 11, 14, 16, 20 test #16 through 20 is:

- 1. MIRU
- 2. Set up sound barriers around the rig.
- POOH with rods.
- 4. Connect to the wellhead and circulate the well clean with brine. Kill the well with weighted brine. Report the final brine weight on the tour report.
- 5. Remove the X-mas tree and wellhead. Make sure the well is dead.
- 6. Install the  $10 \times 900$  BOPE (rated 2000 psi).
- 7. POOH with tubing and packer.
- 8. RIH with a 7 inch x 23 pound casing scraper and clean the casing as deep as possible with the goal to clean out to the top of the perfs. Report the final clean out depth on the tour sheet. Use the wellbore schematic and the well list to determine clean out depth and formation depth.
- 9. Circulate the hole clean.



- 10. Notify DOGGR prior to testing the 7 inch casing so they may witness the test. Use a calibrated chart recorder and have current calibration stickers on all gauges.
- 11.RIH with a 7 inch 23 pound lock set test packer. Set packer at final cleanout depth or 100 feet above the top perf or above the 7 inch casing shoe.
- 12. Pressure test the casing for 30 minutes at 250 psi surface pressure after the surface pressure is stabilized. Use 250 psi if the fluid in the well is between 8.5 ppg to 9.0 ppg. If the fluid in the well is greater than 9.0 ppg re-calculate the surface test pressure to keep the pressure at the test packer below 2,337 psi Upper Jefferson frac pressure. **NOTE:** Before each pressure test calculate the hydrostatic pressure at the upper Jefferson and determine a new surface test pressure to keep the test pressure below the frac pressure of 2337 psi.
- 13. Release the packer and POOH.
- 14.RIH with tubing and packer. Set packer at the required depth. Land tubing.
- 15. Remove BOP. NU wellhead and tree. Test.
- 16. Return well to service.
- 17. Clean location. Release Rig.



#### AllenCo Energy - Las Cienegas Startup Task Task Name Start Duration Finish Predecessors Resource Names March 1 January 11 October 1 November 21 Mode 0 10/22 12/24 1/14 2/4 10/1 11/12 12/3 2/25 3/18 13 Notify DOGGR to witness opening Tue 10/9/18 Thu 10/11/18 12 3 days AllenCo Energy the wells to the system (48 hours before) 14 Isolate the gas system so that the gas 2 days Fri 10/12/18 Mon 13 AllenCo Energy in the wells can be bled down. Begin 10/15/18 24 hour per day supervision. 15 Bleed the wells down in order of 4 days Tue 10/16/18 Fri 10/19/18 14 AllenCo Energy highest pressure to lowest pressure. Send the gas through the FWKO and into the gas line. Send the water to the injection tank. Remove water as needed by vac truck. Once the water has been clear 16 Prepare for first oil. De-water the oil 14 days Mon Thu 11/2/17 shipping line 10/16/17 17 Startup gas turbines Mon 10/22/18 Tue 10/23/18 15 2 days AllenCo Energy 18 Commission the Air Monitoring 2 days Wed Thu 10/25/18 17 AllenCo Energy System and develop the baseline 10/24/18 with the turbines in operation 19 Commission the Gas Measurement 2 days Fri 10/26/18 Mon 18 AllenCo Energy System and develop the baseline 10/29/18 with the turbines in operation. Calibrate the gas meters as required on the gas system 20 Bleed down the gas pressure in all Tue 10/30/18 Fri 11/16/18 19 14 days AllenCo Energy 21 Commission SJ#5. 5 days Mon 11/19/18 Fri 11/23/18 AllenCo Energy 22 St James 4 idle well test. Put well 5 days Fri 11/30/18 21 Mon AllenCo Energy 11/26/18 on production Task **Project Summary** Inactive Milestone Manual Summary Rollup Deadline



Inactive Summary

Manual Task

Duration-only

Split

Milestone

Summary

Project: MS Project\_Start Up\_201

Date: Thu 9/13/18

External Tasks

Inactive Task

External Milestone

Manual Summary

Start-only

Finish-only

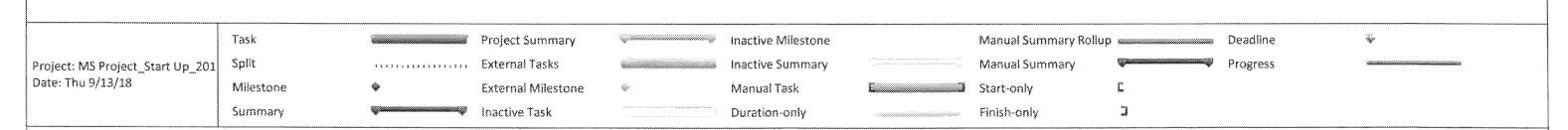
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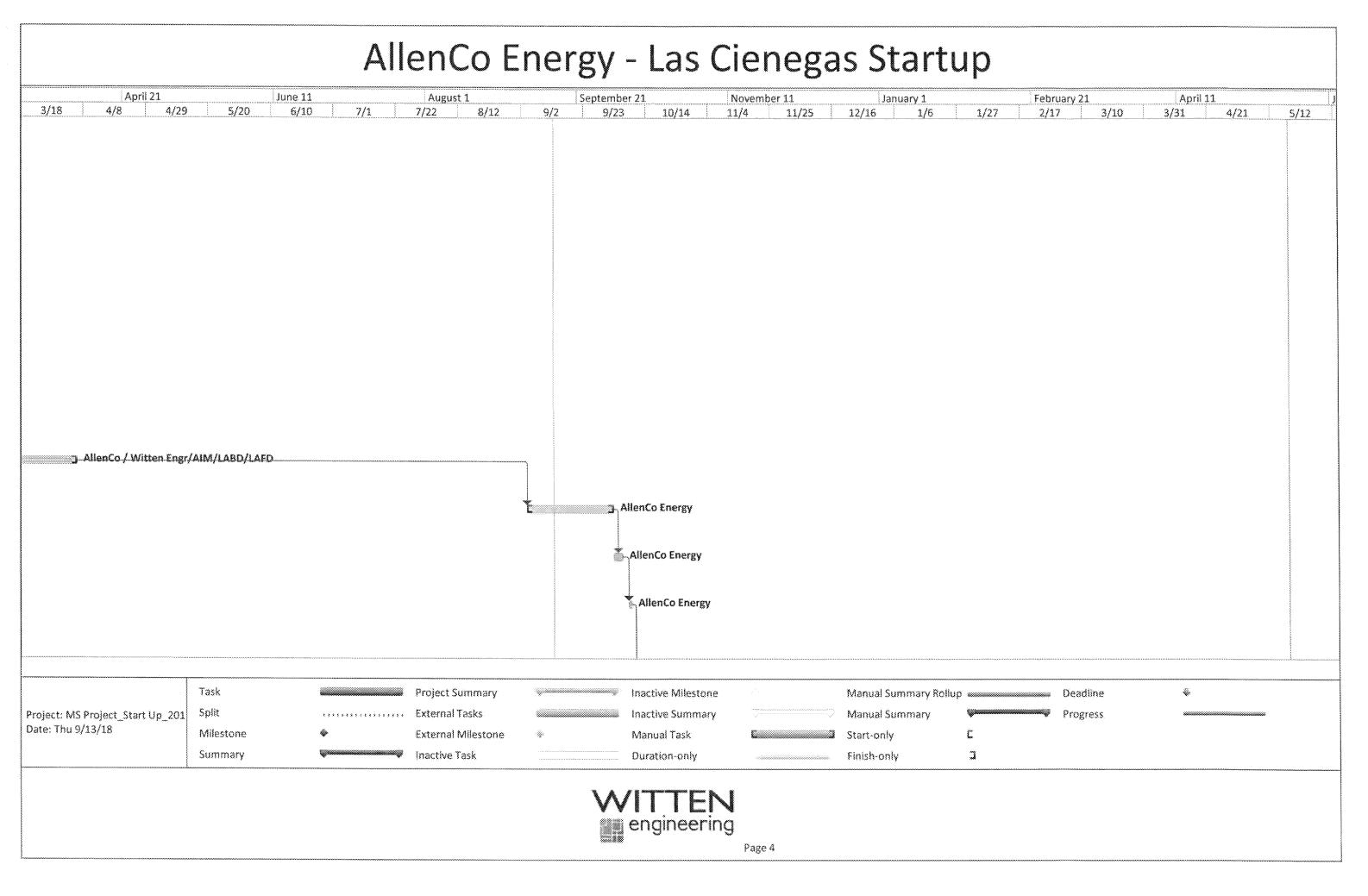
Progress

# AllenCo Energy - Las Cienegas Startup

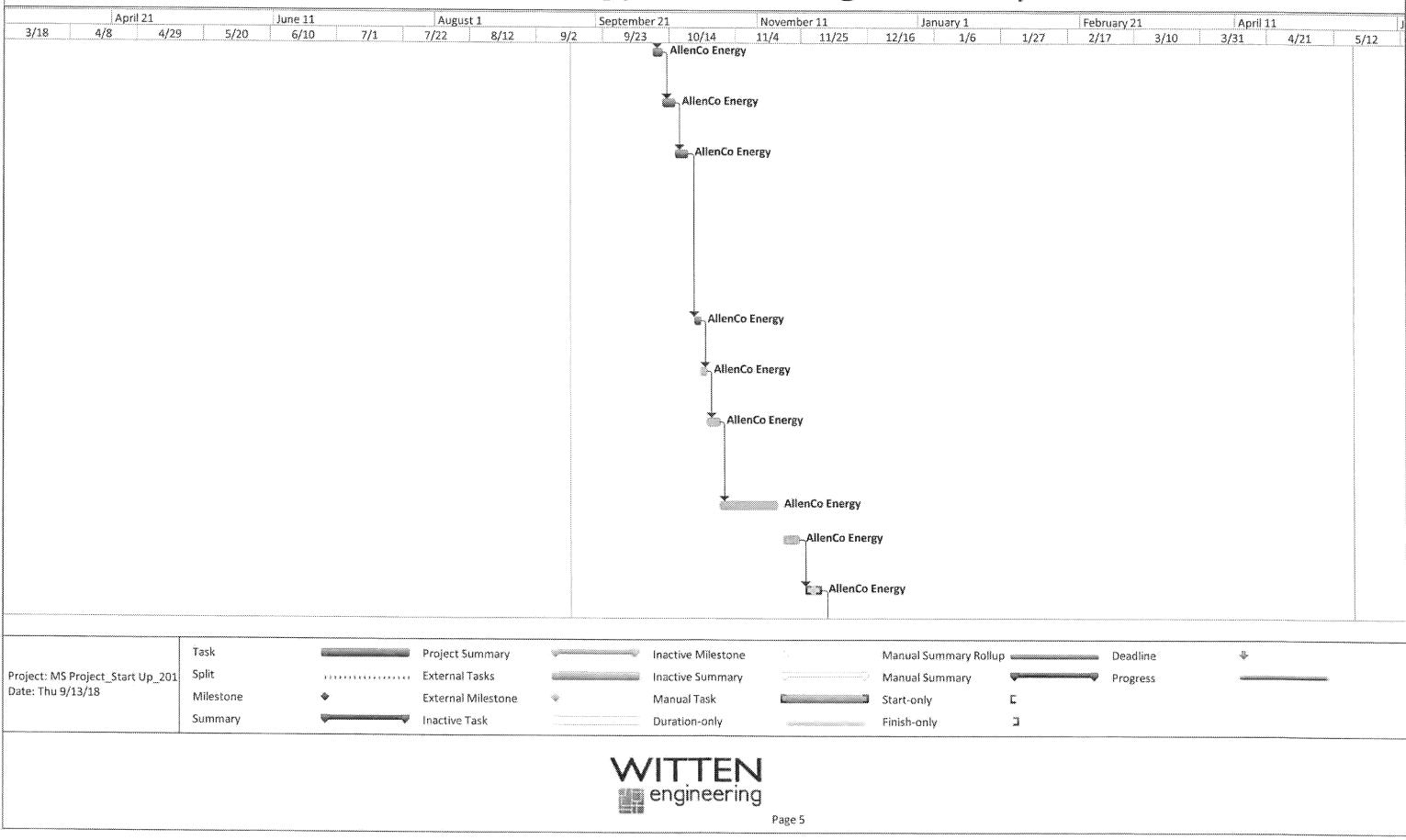
	Task	Task Name	Duration	Start	Finish	Predecessors	Resource Names	October 1		Noveml	per 21	J	anuary 11		March 1	***********************
0	Mode				***************************************			10/1	10/22	11/12	12/3	12/24	1/14	2/4	2/25	3/18
3	**	St James 6 idle well test. Put well on production	5 days	Mon 12/3/18	Fri 12/7/18	22	AllenCo Energy									
	***	St James 8 idle well test. Put well on production	5 days	Mon 12/10/18	Fri 12/14/18	23	AllenCo Energy									
		St James 9 idle well test. Put well on Production	II 5 days	Mon 12/17/18	Fri 12/21/18	24	AllenCo Energy									
	***	St James 10 idle well test. Put well on Production	5 days	Mon 12/24/18	Fri 12/28/18	25	AllenCo Energy									
		St James 15 idle well test. Put well on production	5 days	Mon 12/31/18	Fri 1/4/19	26	AllenCo Energy									
		St James 17 idle well test. Put well on production	5 days	Mon 1/7/19	Fri 1/11/19	27	AllenCo Energy									
	***	St James 19 idle well test	5 days	Mon 1/14/19	Fri 1/18/19	28	AllenCo Energy									
		St James 1 idle well test	5 days	Mon 1/21/19	Fri 1/25/19	29	AllenCo Energy									
		St James 2 idle well test	5 days	Mon 1/28/19	Fri 2/1/19	30	AllenCo Energy									
		St James 7 idle well test	5 days	Mon 2/4/19	Fri 2/8/19	31	AllenCo Energy									
		St James 12 idle well test	5 days	Mon 2/11/19	Fri 2/15/19	32	AllenCo Energy									
		St James 13i dle well test	5 days	Mon 2/18/19	Fri 2/22/19	33	AllenCo Energy									
		St James 21 idle well test	5 days	Mon 2/25/19	Fri 3/1/19	34	AllenCo Energy									
	•	St James 3 idle well test	5 days	Mon 3/4/19	Fri 3/8/19	35	AllenCo Energy									
		St James 11 idle well test	5 days	Mon 3/11/19	Fri 3/15/19	36	AllenCo Energy									
*******	₩.	St James 14 idle well test	5 days	Mon 3/18/19	Fri 3/22/19	37	AllenCo Energy									
		St James 16 idle well test	5 days	Mon 3/25/19	Fri 3/29/19	38	AllenCo Energy									
******		St James 20 idle well test	5 days	Mon 4/1/19	Fri 4/5/19	39	AllenCo Energy									
	*	Full Production / End of Project	30 days	Mon 4/8/19		40										



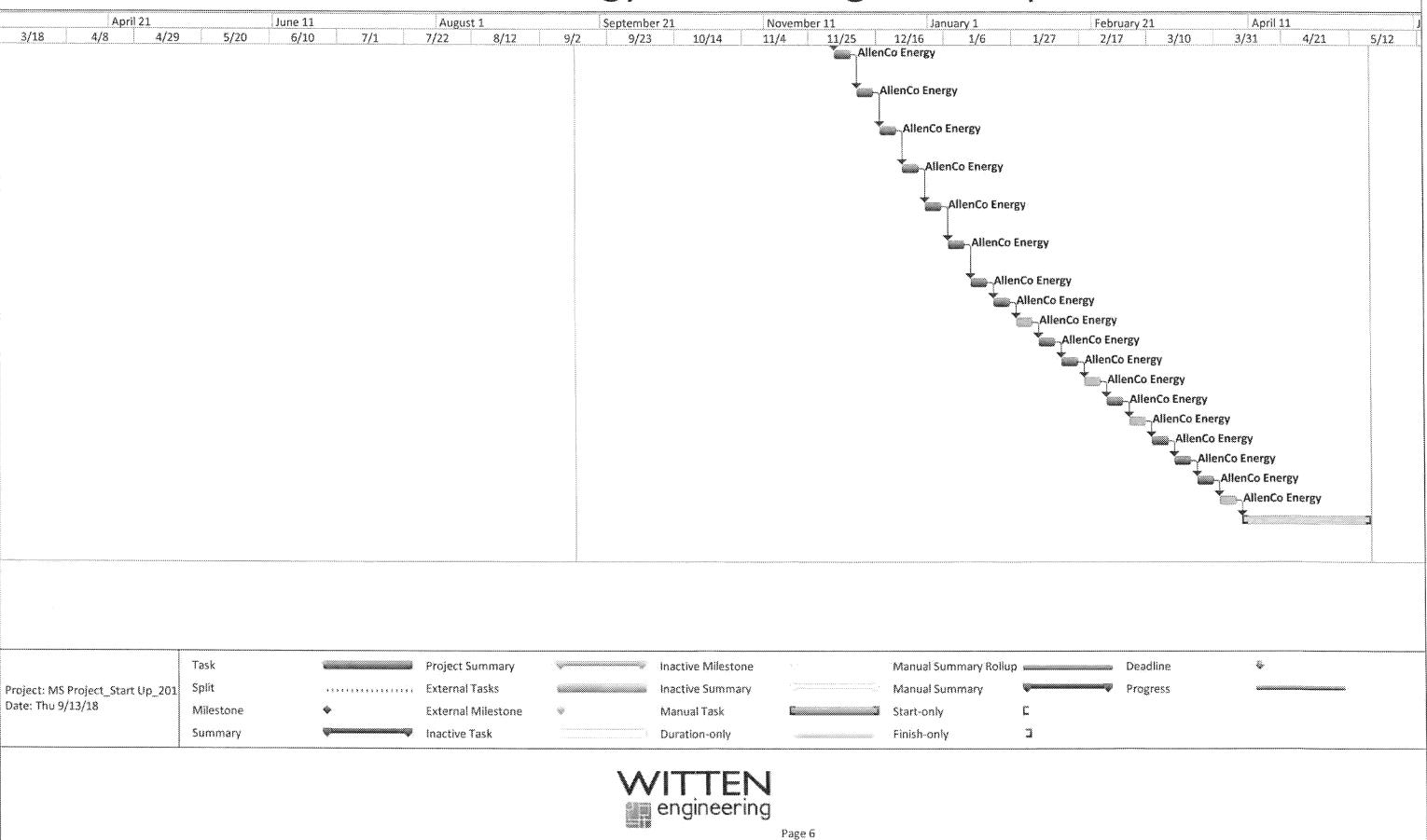




# AllenCo Energy - Las Cienegas Startup



# AllenCo Energy - Las Cienegas Startup





### AllenCo Energy, Inc. Well Startup Procedure

- 1. Isolate all wells from the production system by closing all valves on the wellhead.
- 2. Install newly calibrated gauges on all flowlines and tanks.
- 3. Install choke valves on wells SJ4, 6, 8, 9, 10, 15, and 17.
- 4. Open the flowline for well SJ#4 from the oil tank to the FWKO back to the wellhead. Close the valve to the FWKO.
- Slowly open the wellhead valve on SJ#4. Slowly open the choke valve. The flowline will begin to pressure up. Keep the valve on the FWKO closed until the pressure in the flowline is stable.
- Slowly open the valve at the FWKO and control the flow from the well with the choke valve. Keep the flow rate low until the flowline pressure stabilizes and the FWKO pressure stabilizes.
- 7. Check for leaks.
- 8. Make sure the valves to the oil tank, waste water tank and the injection pump are closed.
- 9. Open the oil tank, waste water tank and water injection line at the FWKO. Wait for the pressure to stabilize in all lines.
- 10.Open the valve to the oil tank, waste water tank and injection pump slowly and allow the pressure to stabilize.
- 11. After SJ#4 is stable, after the pressures in all lines and tanks are stable and when there is enough water to inject, open up the injection line at the injection pump. Open slowly. Once the pressure at SJ#5 is stabilized, slowly open the valve on the SJ#5 tree to inject water. Monitor the injection pressure at the wellhead and control that pressure at no higher than 90% of the MAOP of 1440 psi or less. Inject as required.
- 12. Perform a step rate test on SJ#5. Re-evaluate the MAOP of SJ#5.
- 13. Start the SJ#4 pump. Produce SJ#4 for 72 hours and make sure the production system is stable. Record the production for gas and oil on an hourly basis for 72 hours stable hours. If the well is not producing in stable flow then add another 72 hours. Prepared to open SJ#6.
- 14. Make sure the SJ#6 valve nearest the FWKO is closed. Make sure the choke valve is closed. Slowly open the SJ#6 wellhead valve until full open. Slowly open the choke valve. Monitor the line pressure and check for leaks.
- 15. Slowly open the SJ#6 valve to the FWKO. Continue to open the valve until full open. Once the wellhead pressure is stabilized start the pump on SJ#6. Ramp up the pump to the required SPM to provide steady flow and pressure. Record the production for a 72 hour period of stabilized flow before adding another well to the system.
- 16. Repeat steps 13 and 14 for wells 8, 9, 10, 15, and 17.



- 17. Check the calibration on the gas meters after all wells are stabilized and have been pumping at least 72 hours. Begin recording calibrated gas volumes on an hourly basis in the gas production log.
- 18. Rent a portable tester and place each well in the tester and test each well every month for the next 3 months.
- 19. Check the calibration of the gas meters quarterly.
- 20. Use a portable tester and re-test all the wells after 90 days of production.

### AllenCo Energy Shift Check List

#### Well Cellar

#### Check and observe wells 1 through 21, Pressure Gages, Flow line and Casing

- Check and observe Gas gathering line, observe and record pressure BOTH gauges (well gas)
- Check and observe pipe lines on the wall, Hydraulic, Flow Lines, Injection water, gas and fire water, for leaks.
- Check and observe cellar trench and cellar pump in the trench, leave pump on auto.
- Check the current status on each well.
- Check and observe Water Injection wells. Record Inj. Press and rate. On wells SJ 1, SJ 2, SJ 5

#### HRP UNITS

 Check and observe four HRP Units, Check Hydraulic Oil level, Check PSI and look for leaks, hoses.

#### PIPE LINE RUN

- Check and Observe nine 2" flow lines, one 4" water injection line, one 4" gas line, 2" Fire and waste water. Observe piping color chart.
- Looking for leaks of any kind, or any escaping gas.

#### **FACILITIES**

- Check and observe the wells Header, record pressures.
- Check and observe FWKO, check all of the FLOW, psi and Fahrenheit. Keep pad of gas, Oil and water
- . Check and observe Pad Gas (White and Orange) well gas comes in at 80 psi. Steps down to 4oz. to pad gas

#### **ENCLOSED SUMP 16"**

- Check and observe 16" Sump, pump all fluids to FWKO
- Drain tank fluids when necessary into 16" at all times
- Check fresh water trenches, and start pump when necessary
- Observe Sight Glass on West end 16"/ Pump on & off switch to FWKO

#### **FLUID FLOW**

Check and observe all Gas, Oil and Water flows. Observe all tank fluid heights through sight glasses. Do not open any fluids or gasses to the atmosphere. Know and observe piping color chart. Do not over flow any tank. Shut wells down to avoid any leak or over flow.

#### **GAS LINE TO TURBINES**

- Check and observe the entire 4" gas line to the Turbines, record psi at scrubber.
- Check and observe four C 65 one c 30 Micro Turbines, inspect for noise and odor
- Check and observe Gas flow meter. Record rate daily at 12am

#### TANK 1

- Check and observe charge Pumps 1 and 2. Look for any leaks on the line to Kuno filters
- Check and observe level in tank, check and observe Injection Pressure
- Check and observe Hi Pressure bypass valve
- Observe Tank Hatch, insure it is closed.
- Record Kuno Pressure

#### TANK 2

- Check and observe Crude Oil Stock tank and the level, check and observe tank hatches to insure it is closed at all times. Observe Shipping Pump.
- Check and observe level in tank, Check and Observe tank hatch to insure it is closed

#### TANK 3

- Check and observe level in tank, check and observe tank hatch to insure it is closed.
- This tank is over flow from Tank 5

#### **TANK 4**

- Check and observe level in tank, Check and observe tank hatch to insure it is closed.
- This tank is over flow from Tank 5 / Observe regulator steps 80 psi, to 4oz, on top of Tank 4

#### TANK 5

- Check and observe level in tank, Check and observe tank hatch to insure it is closed.
- Check and observe discharge pump to insure it is operable and working properly
- This tank is the inlet from FWKO, and waste water. The Discharge pump ships to Tank one.(1)

#### Oil Shipping Pump

- Check and observe LACT unit, observe for leaks, pressure, observe lines to Shipping line
- Check and observe shipping press, when shipping. Crimson pulls shipping ticket the 1<sup>st</sup> of each month

#### **PUMP HOUSE**

- Check and observe VAPOR RECOVERY compressors. Check inlet pressure and outlet pressure.
- Observe the scrubber, it drains in the drip return line as do the Turbines.
- Check the oil in each compressor. Check and record the scrubber pressure.
- Check and observe water injection pump check and record the outlet pressure. Check oil in case. The
   Pump will open a High Pressure pop off at 2,300 psi
- Check and observe three Air compressors and check the oil in each daily.
- Check and observe all the lines in the Pump house, looking for leaks or drips.

#### ALARM BOARD

Check and observe all alarms on the board, acknowledge all alarms and check the facility that the alarm is



### Sound Mitigation Plan

- The turbines are enclosed in a sound attenuating cabinet. The exhausts are fitted with sound attenuated mufflers that reduce the exhaust sound by +/- 40 dB.
- A frame with sound blankets will be placed around the hydraulic pumps to minimize the high frequency noise from the motors. The frame will be open at the top for heat dissipation. The sound blankets absorb and block sound.
- Sound attenuating blankets will be used around the workover rig. The monkey board will have blankets installed to absorb and block noise from the work area. Portable sound blankets will be used around the base of the rig to block and absorb the engine noise. The engine exhaust will be adjusted so the exit of the exhaust is up and away from 23<sup>rd</sup> Street. The work platform of the workover rig is very small and an evaluation of noise blankets will be conducted to determine if blankets can be used and still protect worker safety.
- A decibel meter will be used to record sound levels around the facility. Readings will be taken before, during and after work with equipment on the lease. A background reading will be taken on the North side of 23<sup>rd</sup> street before work begins, during work and after work is completed.
- The City of Los Angeles allows construction Monday through Friday from 7:00 am to 9:00 pm. Saturdays and Holidays between 8:00 am and 6:00 pm and no construction on Sundays. AllenCo Energy will limit nonemergency work to 7:00 am to 6:00 pm Monday through Friday. There will not be any nonemergency work on Saturdays, Sundays or holidays.
- Trucks and deliveries will only be allowed between 7:00 am and 5:00 pm
- Sound barriers will be placed inside the pump house in front of vents and doors to prevent high frequency noise emissions from the pump house.



### **Emission and Odor Control Plan**

- The entire facility is surrounded with an emissions monitoring system maintained by a contractor selected by the City of LA.
- When wellwork is contemplated, the well will be shut in and valves on the flowline will be closed. The well will be killed and flushed with formation water or CaCl2 salt water.
   This will clear the tubing of any oil and gas that may evaporate.
- No truck engines will be allowed to idle.
- All gates will be kept closed.
- All tank lids will be closed and all tank levels will be determine from the sight glasses installed on each tank.
- All flowlines and hatches will be inspected for leaks each 12 hour tour.
- All oil residue will be cleaned as soon as possible with steam cleaning as necessary. The
  priority will be to clean during daylight hours to minimize lingering odors in the night
  time humidity.



### Preventative Maintenance Program Plan

The AllenCo Energy, Inc. contains very little machinery and is very compact in footprint. There are:

- o 7 well pumps
- o 21 wellheads
- 3 Hydraulic pumps for the 7 well pumps
- Salt water transfer pump
- 4 centrifugal transfer pumps
- Oil shipping pump
- Water injection pump
- Fire pump
- 2 air compressors
- 5 microturbines
- 8 gas meters and one LACT
- Tanks and piping
- Various valves

All of the above equipment will be maintained by the production operators, various service companies or the manufacturer as required by the manufacturers recommended maintenance.

Attached is a checklist developed for the production operators to monitor the condition and performance of the equipment. In addition the following steps will be taken:

- Every two years the piping and the exterior of the tanks will be ultra-sonically tested. In 2018 all piping, tanks and vessels were tested utilizing ultra-sonic testing. This was the second time UT was conducted at the facility and a corrosion rate has been developed. Pipe maintenance will be determined by the UT corrosion rate.
- All pumps and motors will be inspected each tour for signs of leaks, excessive heat, unusual noise and vibrations. Equipment will be repaired and or replaced as required to remedy the situation.
- The fire pump and alarm system will tested and calibrated each quarter as needed.
- The gas meters will be recorded at the beginning of each tour. During the first 3 months
  of service the manufacturer will calibrate the meters each month. After 3 months of
  operation the meters will be calibrated every quarter.
- The LACT meter will be calibrated every quarter.



- Well pumps and their respective hydraulic units will be visually inspected for leaks, noise, and vibration and serviced as required.
- All sound blankets will be visually inspected each tour.
- Wellheads will be inspected each tour.
- Flowlines will be inspected for leaks each tour.
- o The clamps on the 4 inch injection line will be inspected for leaks each tour.



### **Emergency Operations Plans**

All operations plans for gas leak, fire, chemical spill, produced fluid spills, system alarms and emergency alarms are located at the facility in the production operator's office.

All operators will be trained as required to maintain a safe work environment and to protect the environment first. Production is a secondary objective.

Safe work permits will be required. The AllenCo Energy Safe Work Permit Form is attached. This form incorporates all issues related to gas leak, fire, chemical spill, produced fluid spills, system alarms and emergency alarms.



	SAF	E WORK PERMIT							
Ground I Sour Ope	Work Permit Type								
LOCATI	LOCATION:								
General l	Description of Work:								
Contract									
		No of Workers							
SEE NEX	REVIEW SAFE WORK PERMIT HAZARD CHECKLIST SEE NEXT PAGE for a list of general hazards you may wish to discuss as part of the work permit. Specify the job specific hazards below								
Risk	WORK PERMIT HAZARDS (Risk assess each hazard with the matrix)	RISK CONTROLS/SAFETY PRECAUTIONS/WORK PLANS TO DEAL WITH EACH HAZARD IDENTIFIED (Reference procedures & standards reviewed)							

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RISK ASSESSMENT MATRIX PROCESS	s (see <u>Cor</u>	npany Ne	<i>me</i> Matr	ix Criter	ia for De	scription	s)	
		6		II	I	I	I	I
	1	5			П	1	I	1
FOUR BASIC RISK QUESTIONS	9	4	IV			II	I	1
What can go wrong? Identify the Hazards.	7 8 1	3	IV	IV		***************************************	II	I
How bad can it be? Impact /Consequence/Severity		2	ΙV	IV	IV		Вестоновического	l II
What is the Probability/Likelihood of it happening?		1	IV	IV	IV	IV		\$
What can I/we do about it? Risk controls, Work Plan	7 2 2		1	2	3	4	5	6
			reasing	***************************************	······			

#### SAFE WORK PERMIT HAZARD CHECKLIST

### NOTE: CHECK OFF HAZARDS AND OTHER REQUIREMENTS REVIEWED AS PART OF THIS WORK PLAN

HAZARDS								
Fire & Explosio    Flammable Material   Explosive (perf. Guns TNT etc)   Natural (e.g. forest fires)   Vapors/liquids   Flammable atmosphere   Ignition Sources   Welding   Spark causing tools/motors   Internal combustion engines   Diesel Positive Air Shutoff   Pilot Lights   Static electricity   Identified/Controlled	Toxicity  H2S  O2 Deficiency  Carbon Menoxide  Funes / Vapors  Absorption  Chemical  Precess  Treating chemicals  Corrosives  Oxidizer/reactive  Test Fluids  Paints / Sealers etc.  Asbestos  MSDSs	Mechanical Energy  Kinetic  Equipment  Suspended / Potential  Trenching/Excavation  Working at Heights  Slips / Trips  People  Physical Energy  Noise/Light exposures  Electrical  Electromagnetic  Pressurized  Radiation (x-ray)  NORMS	Effluents   Emissions   Dusts   Spills   Wastes   Waster Conditions   Temperature   Visibility   Site Conditions   Precipitation   Wind direction / speed   Biological   Wildlife /unimals   Insects   Bacteria/Molds/Viruses					
		CONTROLS	prom.					
PROCEDURES  Emergency Response  Emergency Phone List  Site First Aid Plan  Alarms/Conditions  Egress/Muster  Rescue Procedures & /Equip  Plan Review & Exercise  Critical Task Procedures  Reviewed  Copy Attached  Working Alone  Campany Name  Centractor	Confined Space Entry  Work / Rescue plan  Trenching/Excavation  Work/Rescue Plan  bolation  Process/Pressure  Bleeds & Drains  Flare System  Electrical  Cathodic protection  Mechanical  Spacing / Clearances  Fire Hazards	Other Gas Test Required Intermittent min. Continuous Gas Detection Equipment Bump Tested Building Entry Purging/Venting/Flaring/Cleaning Vessels Lines Tunks/Incinerators/Flare Stacks Other Hazardous Areas	Overhead Power Lines   Identified / Clearances   Hazards Related to Other Work   Underway No Yes, Specify   Planned No Yes, Specify   Other Miscellaneous   Lock out / Tag out   Depressuring / Venting   Grounding / Bonding   Smoking Rules / Area   Ladders / Scaffolds   Fall Protection					
Ground Disturbance GD Checklist Completed	Site Hazards Flares/Vents/Storage Vessels Sufe Vehicle Operation	☐ Identified ☐ Barricaded / Signed ☐ Buried Facilities / Pipelmes /	☐ Buddy System ☐ Towing Procedures ☐ Waste disposal					

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	☐ Vehicle back up beepers	Conduits / Electrical	Other—					
TRAINING	Competency for Task	Fall Protection	WORKPLACE					
Safety Orientation	Rigging and slinging	☐High Angle Rescue	Refusal of Unsafe Work					
☐ Health & Safety Rules Reviewed	☐ First Aid / CPR	Confined Space Entry & Resone	Workplace Violence					
Orientation	□ TDG	Ground Disturbance	NO FEAR Workplace					
Contractor	☐ WHMIS	Line Locating	ALL incidents reported					
Company Name	□ H2S	B0P / Well Control	Hazard Identification Cards					
Mobile Equipment, Loaders,	Basic Fire Training	All Certifications On Site						
Cranes, Forklists, etc	Gas Detection Equipment Use	Other						
***	,	decorate of the state of the						
EQUIPMENT_REQUIRED	Breathing Apparatus	Communication Equipment	☐ Barricades					
PPE Appropriate for Task	□ SCABA	(Intrinsically Safe)	Miscellaneous					
Monitors (LEL, H2S, 02, CO)	SABA / Air Trailer	☐ Intrinsically Safe Cords, Lights.	☐ Welding / Splash Shield					
Other	Respirator	Flashlights, Equipment	Ventilators / Air Moving Equip.					
First Aid Kit / Equipment	Sofety / Fire Watch/Stand by	Fall Protection Equipment	☐ Air Hood					
Bye / Skin Wash / Shower	Personnel Assigned to	☐ Fall Arrest Devices	Watertight Equipment					
Consecution	~~~		Second .					
Shower Truck	Ignition Equip./ Flare Gun)	☐ Harness	Spill / Pollution Control Equip.					
Emergency Transport Vehicle	T Firefly	Signaling Device	Equipment Spacing Tag Lines					
Ambulance & EMT	Fire Suppression	Other	Sewage Containment Equip.					
Auto Resuscitator	∏ Portable	Rescue Equipment	Carbage/Recycle Bins					
Auto Defibrillator	Macded	Ladders / Platforms / Scaffolds	Supplemental Lighting					
	Fire Truck(s)	Warning Signs	- Monter					
FOR WORK PERMITS:								
	mory tickler). Identify only those bugards re							
	e risk matrix process to determine the risk b							
<ol> <li>Check off only those hazards that ind</li> </ol>	icate medium to high risk (yellow to red on t	the matrix). There should be very few (1 to 5). E	amaple. Confined space (2) - justic					
atmosphere and/or restricted ingress/egress. If you have more than 5, you are probably doing a site orientation, not a work permit.								
4. List these bazards in Job specific terms in the Work Permit Hazard column on page 1. 5. For these identified bazards, check off all appropriate (task specific) risk control measures in the Procedures, Training and Equipment Required sections of the Hazards								
Checklist.	an abbitich was swam obsessors time situating	armente de 1600 e contractione, a facellage acció sugarque	come conductor morecast in 110 1100 1100					
6. For each bazard identified in the first	column im page 1. document specific risk co	introls, safety precautions, work plans (using th	s items checked off in the Procedures.					
Training, and Equipment Required color	nav as a reference / memory tickler) in the s	econd column on page one.						
7. Where work plans/procedures are ava	ilable, you need only reference them as bein	g reviewed. Example Reviewed contractor "xyz	'8" procedure for 'xxxx" and assigned work					
	have and to be described and any		word and a second second					
venus were pure to me exist, then to     Have safety checks done by matified.	usy secu so be sevempes prior in commenc individual to some work site is safe for so-	ng work. Lexinden on work remn. Of as an a river to enter bound on conditions of come? Do	DECEMBER TO THE PERMIT DESCRIPTION OF COMPLEXITY.					
specific tasks.  8. Where work plans do not exist, then t	hey need to be developed prior to commence	ig reviewed. Example Reviewed contractor "xyz ing work. Document on Work Permit, or as an a rkers to enter based on conditions of permit. Per	ttachment to the permit based on complexity.					

10. Permit lasuer and Permit Receiver(s) sign Work Permit Validation Agreement page 3. Review meeting attendees sign meeting attendees sign meeting attendees list page 3.

11. Permit issuer and Permit receiver close out work permit (work complete, program change, permit expired, etc.) by signing,

12. Permit issuer sends original permit(s) to Calgary for review and retention.



### SAFE WORK PERMIT VALIDATION AGREEMENT

Name	5	ignature	Contact Nur	nber Date/Time
Permit Date & Time Issued	Permit Valid Until	Date & Time	Permit Extended	Date & Time
PERMIT ISSUER/Print Name	Signature			
I understand the work explained t that work conditions change or ha in adjacent equipment/process, et	ızards occur (e	x: flammable/te	oxic material lea	ks, spills, drastic operating change
PERMIT RECEIVER / Print Name	Company -		Signature -	Permit Returned . Signature
PERMIT RECEIVER / Print Name	Company		Signature	Permit Returned - Signature
PERMIT RECEIVER / Print Name	Company		Signature	Permit Returned - Signature
PERMIT RECEIVER / Print Name	Company		Signature	Permit Returned - Signature
PERMIT RECEIVER / Print Name	Company		Signature	Permit Returned - Signature
Permit Returned (Date & Time		) jameny	nit Issuer (Signat Work Complete	·

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#### WORK PERMIT MEETING ATTENDEE LIST

Name (Print)	Employer	Signature	Name (Print)	Employer	Signature
***************************************					
					······································



### Daily Equipment Mobilization

The operational strategy is to have a self-sufficient production facility with minimal requirements from outside sources.

- After the gas on the wells is consumed as turbine fuel a workover rig will be mobilized to the site to begin testing the wells. The rig will operate Monday through Friday from 7 am to 5 pm. The rig will remain on location till all well work is complete. The workers will arrive at 6:30 am and depart at 5:30 pm using work trucks and private vehicles. The first well will use captured rainwater with CaCl as a circulating fluid. Because the wells are shut in it may be necessary to augment the water on location with purchased CaCl water. If so there will be 5 100 bbl trucks arriving and departing during the time of the first workover.
- All produced water will be injected into well SJ#5. We do not anticipate the need for routine vac truck service. There is no plan for vac truck service in support of the wells.
- Once per month the facility may be steam cleaned. This waste water will be picked up with a vac truck.
- For daily equipment, there will not be any daily equipment mob and demob. The workers will arrive by work truck and depart by work truck. There will be approximately 5 work trucks each day.

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### Anticipated Mobile Equipment Counts by Day

- Day 1: Prep for blowdown of the gas
  - 6 pickups; Supervisor, mechanic, welder, 3 contractor pickups
  - Incinerator unit; This unit will be left on location overnight
  - Piping truck
- Day 2: Blowdown the air in the gas line
  - 6 pickups
  - Incinerator unit and all pickups depart at days end
- Day 3 through +/- 14: Burn gas in the turbines
  - 3 pickups
- Day 15: Mobilize equipment for MIT and step rate test on SJ#5.
  - 1 workover rig
  - 1 tool truck
  - 4 pickups
  - 1 small (60 bbl) vac truck for cleanup and washdown
  - For the first 2 weeks there might be delivery of water for workover fluid. Once a producer is online the produced water will be used as the base fluid to workover the wells.
  - The rig and tool truck will remain on location until all testing is complete.
  - For approximately 12 weeks the workover rig will be onsite working on the wells.
     The vehicle traffic will consist of production operator pickup, workover rig crew vehicle, supervisor pickup and engineer pickup.
- Day 100: Once stable production is reached and well work is complete there will be about 3 pickup trucks per day entering the site.



# Anticipated Daily Vehicle Traffic During Each Stage of the Startup Process

The field is very small. The startup process is for seven wells and one injector. The field is self-contained and does not require outside equipment. The daily vehicle traffic consists of 3 to 4 pickups for the production operators and production supervisors. The special equipment consists of a workover rig that will be brought in and stay until all seven wells and one injector has been returned to service.

The time to return production to the normal level is detailed on the Microsoft Project,